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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/689,193	08/05/96	WAI	G 5404
EXAMINER			

13M1/1103
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ASHLAND CHEMICAL COMPANY
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ART UNIT	PAPER NUMBER
1303	4
DATE MAILED: 11/03/97	

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

- ☐ Responsive to communication(s) filed on _____
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 MONTHS month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

- ☒ Claim(s) 1-10 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-10 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
- ☐ received.
- ☐ received in Application No. (Series Code/Serial Number) _____
- ☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

- ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- ☒ Notice of Reference Cited, PTO-892
- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

Art Unit: 1303

DETAILED ACTION

1. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Only cationic guar gum having a cationic charge of between 0.01 and 3.0 meq/g, the weight ratio of cationic guar gum to isobutylene maleic acid anhydride copolymer being 6:1 to 1:6.

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of 37 CFR 1.71(a)-(c):

(a) The specification must include a written description of the invention or discovery and of the manner and process of making and using the same, and is required to be in such full, clear, concise, and exact terms as to enable any person skilled in the art or science to which the invention or discovery appertains, or with which it is most nearly connected, to make and use the same.

(b) The specification must set forth the precise invention for which a patent is solicited, in such manner as to distinguish it from other inventions and from what is old. It must describe completely a specific embodiment of the process, machine, manufacture, composition of matter or improvement invented, and must explain the mode of operation or principle whenever applicable. The best mode contemplated by the inventor of carrying out his invention must be set forth.

© In the case of an improvement, the specification must particularly point out the part or parts of the process, machine, manufacture, or composition of matter to which the improvement relates, and the description should be confined to the specific improvement and to such parts as necessarily cooperate with it or as may be necessary to a complete understanding or description of it.

The specification is objected to under 37 CFR 1.71 because non-enabling disclosure.

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There is no disclosure as to amounts or proportions of maleic acid anhydride and isobutylene present in the copolymer.

3. Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. AS noted above
4. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Farley (3,992,249) or JP 55-84491 in view of Svending (4,946,557) or Larsson (4,755,259) and Louche et al.

Farley and JP 55-84491 disclose the use of the claimed isobutylene and maleic acid copolymer as a pitch control agent in paper making. JP 55-84491 teaches that the copolymer acts to disperse the pitch particles. Louche teaches that it is a well known concept of using anionic polymers to disperse pitch particles and cationic polymer to fix the pitch particles, i.e., retain the pitch particles. Svending or Larsson show that cationic guar gum is a well known cationic polymer retention aid. Note that the recitation of maleic anhydride includes the acid or acid salt form of the copolymer, page 4 of the instant specification.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dreisbach et al (5,292,403) shows the use of a charged polymer and oppositely charged surfactant as a preblended mixture in pitch control.

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Welkener et al (5,300,194) and Aston et al (5,246,548) teach pitch control with a combination of anionic polymer and cationic polymer.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peter Chin whose telephone number is (703) 308-2046.

A handwritten signature in black ink, appearing to read 'Peter Chin', with a long horizontal line extending to the right.

**PETER CHIN
PRIMARY EXAMINER
GROUP 1300**